	Soil		Structures	
ROC	RG	Risk	RG	Risk
Am-241	1.360	5.65E-07	100	6.60E-08
Cs-137	0.113	1.66E-06	5000	5.99E-05
Co-60	0.036	9.30E-07	5000	2.00E-04
Eu-152	0.130	2.86E-06	5000	2.24E-04
Eu-154	0.230	4.16E-06	5000	1.51E-04
H-3	2.280	9.60E-06	5000	0.00E+00
Pu-239	2.59	6.68E-07	100	2.84E-11
Ra-226	1	6.76E-05	100	6.13E-06
Sr-90	0.331	7.87E-08	1000	1.85E-11
Th-232	1.69	1.50E-04	36.5	4.13E-06
U-235	0.195	7.42E-07	100	2.99E-06

## Soil PRG

## Calculator

- Resident receptor exposed to contaminated soil (ingestion, inhalation, external exposure)
- No clean soil cover
- Site area for ACF changed to 2000 m2 to match default area of site contamination (0.5 acres)
- City (Climate Zone) changed to San Francisco
- For convenience and ease of input, long-lived ROCs (half-lives >100 yr) run using default secular equilibrium (no decay) option: Am, Pu, Ra, Th, U

Ra and Th risks come from full secular equilibrium

Am risks from Am-241 only

Pu risks include U-235m

U risks include Th-231

 Shorter-lived ROCs (half-lives <100 yr) run using Provide results for progeny (with decay) option: Cs, Co, Eu, H, Sr

Cs risks include Ba-137m (in secular equilibrium and half-life forced to that of parent)

Co risks from Co-60 only

Eu risks from Eu-152 or Eu-154 only

H risks from H-3 only

Sr risks include Y-90 (in secular equilibrium and half-life forced to that of parent)

## **Structures BPRG Calculator**

- Indoor worker exposed to contaminated settled dust on walls, floor and ceiling (3-D external exposure).
- No ingestion exposure since loose material would be removed through cleaning or sealing before receptor exposures.
- Room material changed to concrete from composite default since most of drywall and wooden internal surfaces were removed during abatement
- Room size changed to maximum 400 x 400 x 40 ft since most of internal walls were removed or buildings are open bays
- For convenience and ease of input, long-lived ROCs (half-lives >100 yr) run using default secular equilibrium(no decay) option: Am, Pu, Ra, Th, U

Ra and Th risks come from full secular equilibrium

Am risks from Am-241 only

Pu risks include U-235m

U risks include Th-231

 Shorter-lived ROCs (half-lives <100 yr) run using Provide results for progeny (with decay) option: Cs, Co, Eu, H, Sr

Cs risks include Ba-137m (in secular equilibrium and half-life forced to that of parent)

Co risks from Co-60 only

Eu risks from Eu-152 or Eu-154 only

H risks from H-3 only

Sr risks include Y-90 (in secular equilibrium and half-life forced to that of parent)